

**RESTORING MARKET CREDIBILITY IN THE FLASH CRASH AFTERMATH**  
**SENATOR EDWARD E. KAUFMAN**  
**JUNE 16, 2010**

Mr. President, I have always believed the two most important things that make America great are democracy and free capital markets. But over the last year, as many of my colleagues are aware, I have become deeply concerned that the credibility of our stock markets – one of our nation’s most precious national treasures – can no longer be taken for granted.

On May 6<sup>th</sup>, when the markets yo-yoed up and down, plunging 573 points in a mere *five* minutes before recovering 543 points in the next *90 seconds* – it was nothing less than an embarrassment.

The strength of our stock market depends on its ability to establish an accurate price for a company's fundamental value that reflects a consensus among buyers and sellers at any given moment. In that capacity, the markets failed, in fact they *spectacularly failed*, for a harrowing 20-minute time period.

In the aftermath of May 6<sup>th</sup>, the integrity of our markets has been questioned, and investor confidence has been shaken. In order to restore market credibility and instill confidence among the investing public, regulators and lawmakers alike must act wisely but urgently to fix the structural schisms that plague today’s capital markets.

That is why I am encouraged, and relieved, that Mary Schapiro, the Chairman of the Securities and Exchange Commission, clearly understands what is at stake. Testifying before the Senate Subcommittee for Securities, Insurance, and Investment on May 20<sup>th</sup>, she said: “I believe the markets exist for public companies to raise capital, to build businesses, and create jobs, and they exist for investors to support that activity. And those are the number one and number two purposes of markets. And everything else from my perspective has to be put into the context of those two goals.”

At a panel last week in Montreal at the International Organization of Securities Commissions, Chairman Schapiro reiterated that point, saying the SEC needs to: “[E]xplore whether bids and orders should be regulated on speed so there is less incentive to engage in this microsecond arms race that might undermine long-term investors and the market’s capital-formation function. The markets have to serve that function for companies to raise money, create jobs and allow the economy to grow... We are also looking at whether and to what extent pre-trade price discovery is impaired by the diversion of desirable, marketable order flow from public markets to dark pools.”

I couldn’t agree more with Chairman Schapiro. May 6<sup>th</sup> made clear what many have long claimed: today’s overly-fragmented marketplace, which seems to favor speed over substance, and trading over investing, may be inhibiting the capital-formation process

and failing to protect the interests of long-term investors. If that is the case, then regulatory action is needed urgently.

Simply put, do stock prices adequately reflect the economics of the companies they represent? On May 6<sup>th</sup>, when liquidity vanished and established companies like Accenture traded briefly for a penny a share, the answer to the question of whether our markets are performing their central function was clearly no.

But rather than an aberration, it appears that the May 6<sup>th</sup> flash crash was no isolated event. On June 2, we saw yet another “mini-flash crash” in the stock of Diebold, a technological services company.

Prior to 12:22 pm that day, Diebold had traded at around \$28 per share and within a range of roughly 80 cents. In the next *minute*, the rug was swept out from under Diebold as 399,000 shares were traded and Diebold's stock price plunged 35% to \$18. By 12:40, Diebold was once again trading at \$28 per share.

The sudden decline in price appeared to be in response to news of Diebold’s settlement with the SEC over fraudulent accounting practices, which *Bloomberg* began reporting at 12:25 and Diebold confirmed with a press release a little more than an hour later that afternoon.

The SEC should investigate both the manner in which the news broke and the trading activity that followed it. In the aftermath of the extreme plunge, questions have been raised concerning the manner in which the SEC filed the complaint, which data feeds first reported it, and the electronic overreaction to the news – all of which suggest that the severe volatility in Diebold could have been largely avoided altogether.

The SEC was actually resolving an old investigation with Diebold, the settlement of which had been previously disclosed, and not making any new accusations against the company. But when word of the complaint reached *Bloomberg* or other sources, it led to a “trigger” that potentially activated algorithms programmed to react immediately to breaking news. This may explain why trading activity in Diebold exploded shortly before the story broke publicly.

Notably, the SEC filed the complaint manually at the US Federal District Court in DC during market hours rather than using the Public Access to Court Electronic Records (PACER) filing system.

Mr. President, regulators should add to their list the need to examine whether the precipitous drop in Diebold stock was the result of high frequency traders who can subscribe directly to market data and news feeds and perhaps had programmed faulty correlations into their algorithms to react to breaking news events.

Indeed, with so much of the marketplace dominated by high frequency traders employing similar strategies, an overreaction by a few algorithms looking to trade instantaneously

on the basis of imprecise correlations could trigger a dramatic plunge. While the algorithms' calculations may be accurate "most of the time," the chaos that ensues when they are not inexcusably undermines investor confidence.

In the Diebold case, once the algorithmic overreaction became clear, humans with actual knowledge of Diebold's true fundamentals quickly intervened. It is no surprise, then, that the stock price rebounded so quickly. Though volatility has always been present in the markets, we see that without human judgment the speed of trading can indeed lead to very brief "bungee jumps" for *individual stocks* whenever there is a significant news event.

At the same time, regulators should also consider whether the extreme volatility in Diebold's stock is yet another example of sell orders breaking through a "razor-thin crust" of liquidity provided by high frequency traders. As we saw on May 6<sup>th</sup>, the high frequency traders who fill the order books on many market centers provide only "fleeting" liquidity, particularly in periods of market stress or uncertainty. This is because many high frequency traders prefer to continuously place and cancel small, rapid-fire orders rather than risk letting their orders sit on public venues where they would increase order book depth and promote orderly markets.

Regardless of what caused Diebold's "bungee jump" or the May 6<sup>th</sup> market meltdown, we should all agree that such unusual market activity strikes at the very heart of our market's credibility.

Even if the SEC's circuit breaker pilot program – which would halt trading for five minutes in any S&P 500 stock that experiences a 10 percent price change in the previous five minutes – were in place, market and stop-loss orders would still remain vulnerable to a 10 percent insta-drop. This situation undermines the confidence of long-term investors. Mr. President, the Diebold incident and other factors from May 6<sup>th</sup> make me concerned about what our markets have become. According to a research group survey of 145 market participants conducted in the weeks following May 6<sup>th</sup>, I am not alone.

The Executive Summary of the survey results states overall investor confidence in the existing market structure is waning. It says: "Barely half of all participants have at least a high degree of confidence in US equity market structure; The buy side has the least confidence in US equity market structure. This is particularly demoralizing given they are the guardians over much of our nation's equity investments; Participants no longer believe market structure strongly supports an orderly market; Increasingly, market participants believe that the US equity market structure is not a level playing field."

These results underscore how critical it is for regulators to address problems with the current market structure in order to restore investor confidence and protect the strength and credibility of our capital markets.

Sadly, Mr. President, the fact is that we simply do not have the data we need to assess fully the impact of market structure changes on long-term investors. Indeed, regulators

currently lack sufficient information on the routing history of orders – including those that may go through broker-dealer internalization venues, other dark pools, and multiple exchanges and ECNs before being executed. The SEC also acknowledges it does not have: “important information on the time of the trade or the identity of the customer.”

As Kevin Cronin, the Director of Global Equity Trading at Invesco, a retail and institutional investment fund, said at a June 2<sup>nd</sup> SEC Roundtable: “there are dimensions of cost that today we do not have the ability to really understand.”

Accordingly, I have pushed for the SEC to quickly implement tagging for large traders and a consolidated audit trail in order to gain a more granular view of the marketplace. Once the Commission has collected the data, it should improve its internal analytical capabilities while also making the data available in masked form to the public, or at least academics and independent analysts, so that objective experts can study market performance comprehensively.

I admit there are no easy solutions, Mr. President, but we need to strive to answer the difficult questions or millions of Americans will eventually lose confidence in our markets and leave what is already starting to look like a “casino” where the house always wins.

In that regard, Chairman Schapiro again appears to be on the right track. Regulators must consider, as she said, whether high frequency traders should be subject to speed limits and whether deep and valuable liquidity is being shielded from the public marketplace.

Our markets should not be reduced to a battle of algorithms in which capital formation is an afterthought and long-term investors are relegated to second-tier status, nor should the public “lit” markets house only “exhaust” order flow that is passed over by those who trade in dark pools.

Perhaps high frequency traders who claim to be “modern-day market-makers” should be subject to some quoting obligations like their traditional market-maker predecessors. Setting reasonable speed limits on how quickly such traders can withdraw their bids and offers, as Chairman Schapiro alluded to last week, could help level the playing field and make the markets safer and more stable for all investors.

I have also proposed requiring exchanges and market centers to allocate costs at least partially based on message traffic share. Cancellations, of course, are not inherently bad - they can enhance liquidity by affording automated traders greater flexibility when posting quotes. But with as many as 98 percent of orders placed on Nasdaq cancelled or otherwise unexecuted on a given trading day, their use is clearly excessive. Those who choke the system with cancellations make the markets less efficient for investors. And they should pay the price for the inefficiencies they create.

Exchanges cater to high frequency traders in a variety of ways, by electing *not* to charge them for high cancellation rates, and providing co-location services for their computers

right next to the exchanges' own servers. Fortunately, co-location and direct market data feeds appear to be on the regulatory radar – the CFTC proposed a rule last week to ensure exchanges provide “fair access” for, and increased transparency of, co-location services.

But new practices that further threaten market integrity have recently come to light. Several market participants, including institutional investment adviser Southeastern Asset Management, have said exchanges are releasing private information on investor orders, including details on the total shares an investor has accumulated and other data that could be used by high frequency traders to trade ahead of investor orders. It is important to remember, Mr. President, that these potentially-disadvantaged institutional orders represent the tens of millions of Americans who invest in mutual, pension and retirement funds.

Mr. President, these market practices, among many others, underscore how critical it is for regulators to keep pace with market developments. The May 6<sup>th</sup> flash crash and the “mini-flash crash” in Diebold a month later have sounded the alarm that the very credibility of our markets is at stake. And while regulators must continue to rely on data to drive the rule-making process and be mindful of unintended consequences, they cannot delay in tackling the problems that leave us vulnerable to another flash crash *today*.

As an engineer, and a graduate of Wharton Business School, I understand and appreciate as much as anyone the importance of innovation and technological advancement. And I want to be clear: I am not interested in banning high frequency trading or dark pools, nor am I advocating a return to a horse-and-buggy system.

But new technologies must operate in a regulatory framework that considers both positive and negative consequences. If the public marketplace has been reduced to a battle of algorithms in which liquidity is fleeting and inaccessible when investors need it the most, and if the deep liquidity that is so critical to establishing accurate prices – particularly during times of market stress – is largely traded in dark pools, that must be carefully but urgently remedied.

As John Wooden, the legendary UCLA basketball coach who passed away two weeks ago, used to say: “Be quick, but don’t hurry.” The SEC and CFTC must adopt the same philosophy, Mr. President, as they confront the great challenges before them.

###